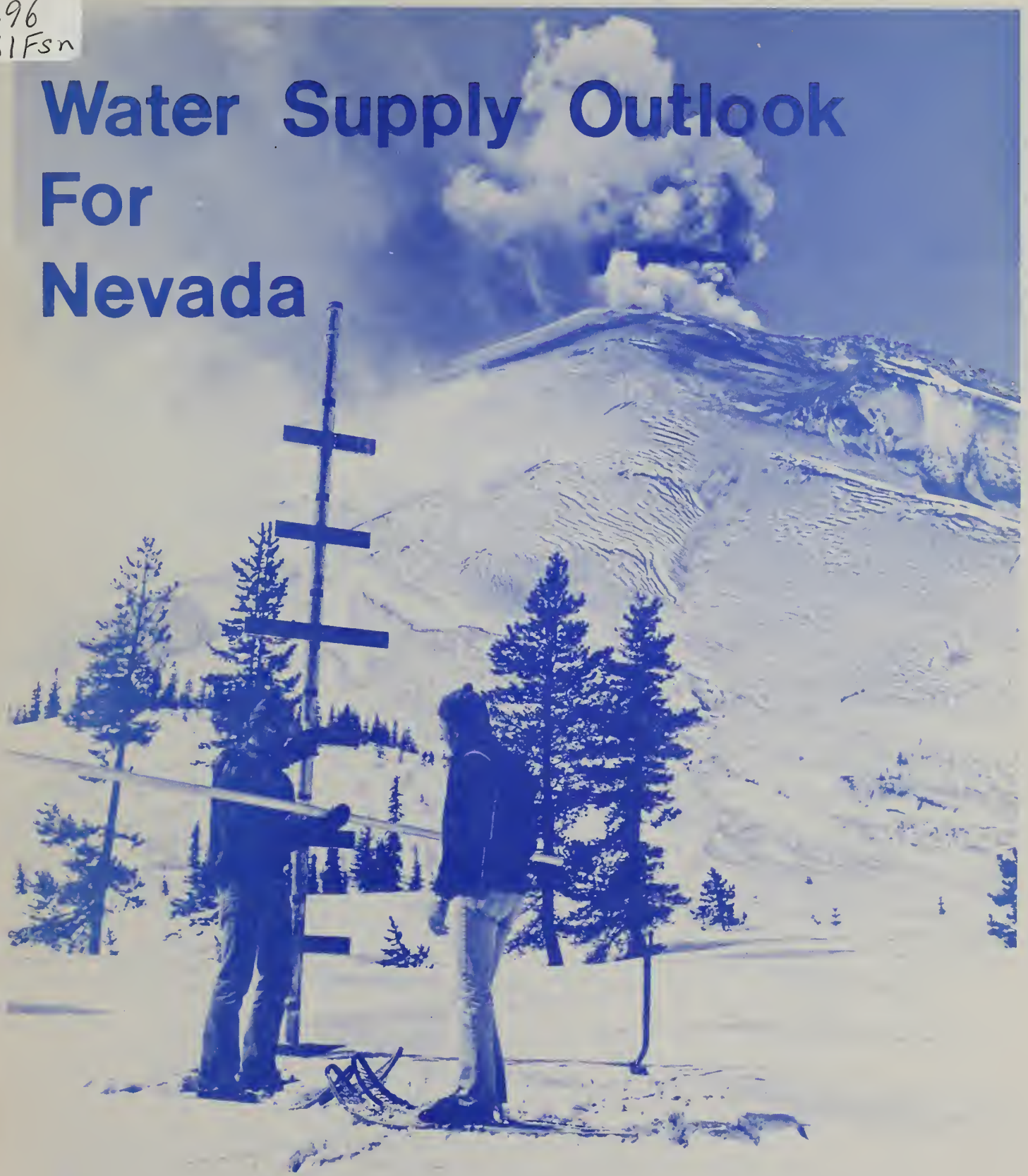
Water Supply Outlook For Nevada



SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

Cooperating with

NEVADA DEPARTMENT of CONSERVATION
AND NATURAL RESOURCES
DIVISION OF WATER RESOURCES

AS OF
JAN. 1, 1981

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: SNOW SURVEYORS MAKING SPECIAL MEASUREMENTS OF THE SNOWPACK NEAR MT. ST. HELENS VOLCANO, WASHINGTON, APRIL 1980.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.

WATER SUPPLY OUTLOOK FOR NEVADA

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

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ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D.C.

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RENO, NEVADA

In Cooperation with

ROLAND D. WESTERGARD

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DEPARTMENT OF CONSERVATION AND
NATURAL RESOURCES
CARSON CITY, NEVADA

Report prepared by

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SOIL CONSERVATION SERVICE
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RENO, NEVADA

TABLE OF CONTENTS

All averages are for 1963-77 period.

WATER SUPPLY OUTLOOK
FOR NEVADA

SNOW MEASUREMENTS

Snow measurements taken near the end of December substantiate the lack of snowpack. All snow courses are below average and are the lowest since January 1, 1977, when there was virtually no snow.

The only significant storm in the Sierra occurred the first five days of December. The snowpack is now below average in depth and water content. The Tahoe and Truckee basins are only 29 percent of average January 1 totals and about 38 percent of last year, which was also below average. The Carson and Walker basins are only slightly higher with 41 percent of average and half of last year.

The Humboldt basin measurements indicate the same trend with all sites measured being below average.

Some comparative depths and water contents of this year's snowpack to January 1 and April 1 averages are:

Name	Snow Depth (inches)			Water Content (inches)		
	This Year	Average		This Year	Average	
		Jan. 1	April 1		Jan. 1	April 1
Independence Camp	7	29	56	2.8	8.1	21.8
Echo Summit	11	46	79	3.3	13.0	32.5
Sonora Pass	13	46	79	3.8	13.0	32.5
Marlette Lake	11	31	54	2.7	8.7	21.1

These figures show the small amount of snow now as compared to the large amounts needed to attain an average snowpack. There is usually 40 to 45 percent of the average April 1 snowpack in place by January 1.

RESERVOIR STORAGE

Reservoir storage has improved over last year but is still below average in Lake Tahoe, the largest storage facility affecting the State's water supply.

Lake Tahoe now contains 325,000 acre-feet of available water. This compares to last year's 85,000 acre-feet and an average of 445,000 acre-feet. Lahontan, Boca, Topaz and Bridgeport reservoirs all are near average. Rye Patch Reservoir now contains 153,000 acres-feet compared to last year's 90,000 acre-feet and is near capacity of 172,000 acre-feet.

SNOTEL

The Nevada Snow Survey Unit now has forty-seven Snow Telemetry sites operational. This system allows for daily monitoring of the snowpack, precipitaion, and temperature throughout the Eastern slope of the Sierra and Nevada. This project was implemented during the summer of 1975 and was completed this past summer with radios installed at all sites. Many water users and cooperators are accessing this data on their own computer terminals and several are receiving hard copy data weekly. Requests for this data should be directed to Gerald Thola, State Conservationist, Soil Conservation Service, P.O. Box 4850, Reno, NV 89505.

STREAMFLOW FORECASTS (Thousand Acre Feet) as of: January 1, 1981

Forecasts are based on snow-water presently stored in the mountain watersheds and the assumption that precipitation will be near average throughout the forecast period. Peak flow forecasts indicate the most probable range for the maximum average 24-hour flow. All averages are for 1963-77 period.

FORECAST POINT	Forecast Period	Forecast This Year	This Year as Percent of Average	Average +
TRUCKEE RIVER				
Truckee River at Farad, CA 1/	April-July	180	66	273
Lake Tahoe Rise in Feet (assuming gates closed)	April 1 to high	0.9	63	1.42
Little Truckee River above Boca, CA	April-July	55	64	86
CARSON RIVER				
East Carson near Gardnerville, NV	April-July	125	67	187
West Carson at Woodfords, CA	April-July	35	65	53
Carson River near Carson City, NV	April-July	115	63	183
Carson near Fort Churchill, NV	April-July	100	60	167
WALKER RIVER				
East Walker near Bridgeport, CA 2/	April-Aug.	50	72	69
West Walker below Little Walker near Coleville, CA	April-July	100	69	146
HUMBOLDT				
Lamoille Creek near Lamoille, NV	April-July	20	70	29
S. Fork Humboldt above Dixie Creek, NV	April-July	50	69	73
Marys River above Hot Springs, NV	April-July	25	68	37
N. Fork Humboldt at Devils Gate, NV	April-July	25	71	35
Humboldt River at Palisade, NV	April-July	160	72	221
Humboldt River at Comus, NV	April-July	130	73	178
Martin Creek near Paradise, NV	April-July	10	67	15
SNAKE RIVER				
Owyhee River near Gold Creek, NV 3/	April-July	15	63	23
Owyhee River near Owyhee, NV 3/	April-July	50	63	80

NOTE: Streamflow forecasts which appear in this bulletin are a coordinated activity of the National Weather Service and the Soil Conservation Service in an effort to provide the best possible forecasting service to water users.

1/ Observed flow plus change in storage in Boca, Stampede and Prosser Reservoirs, Donner, Independence and Martis Creek Lakes, and minus the flow at Truckee River at Tahoe City, California.
2/ Observed flow plus change in storage in Bridgeport Reservoir.
3/ Observed flow plus change in storage in Wild Horse Reservoir.

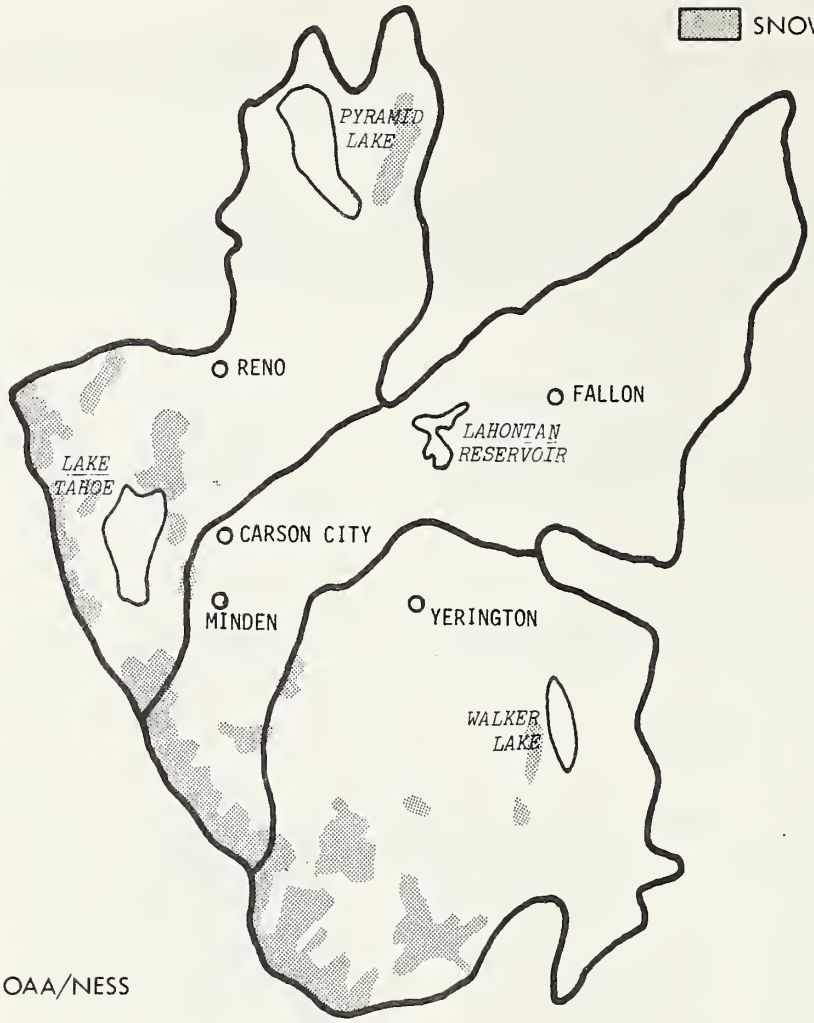
+ 1963-1977 period.

M7-L-2202SM

SATELLITE SNOW COVER

TAHOE-TRUCKEE, CARSON AND WALKER BASINS

December 23, 1980



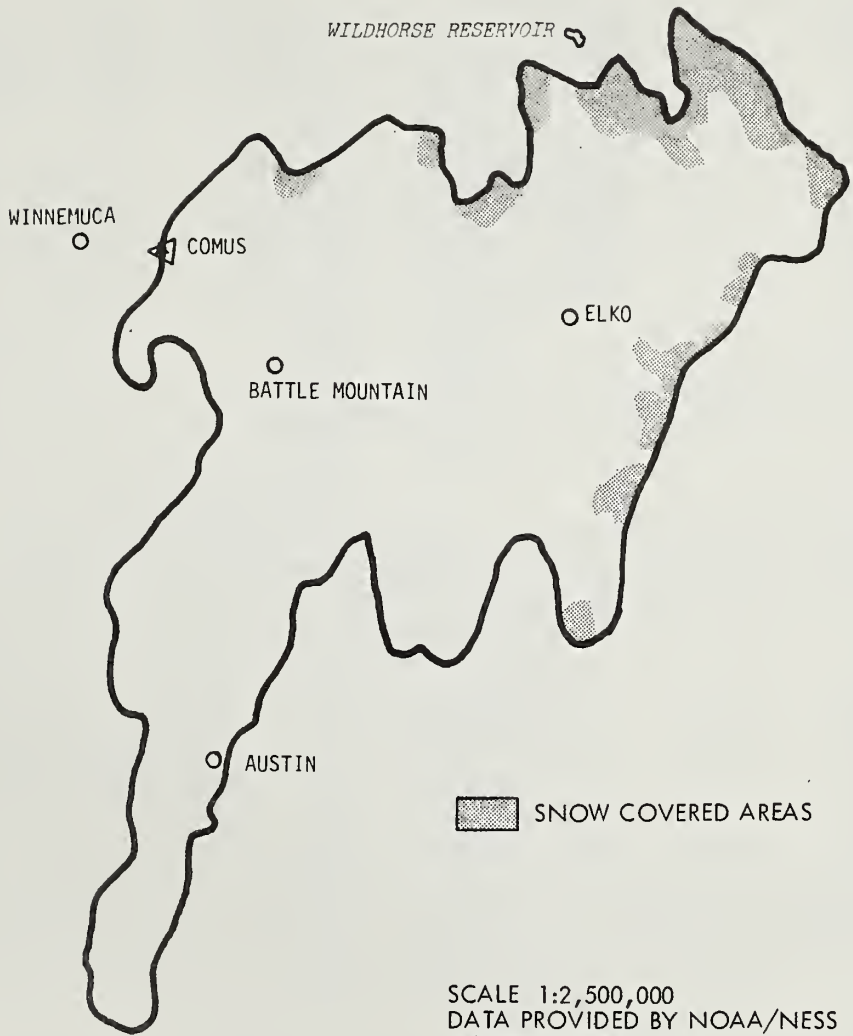
SCALE 1:2,000,000
DATA PROVIDED BY NOAA/NESS
WASHINGTON D.C.

BASIN	THIS YEAR	PERCENT SNOW COVER	LAST YEAR	PERCENT SNOW COVER
TAHOE-TRUCKEE	November 27, 1980	8.0%	November 29, 1979	7.0%
	December 23, 1980	11.0%	December 27, 1979	68.0%
CARSON	November 27, 1980	3.0%	November 29, 1979	3.0%
	December 23, 1980	6.0%	December 27, 1979	31.0%
WALKER	November 27, 1980	9.0%	November 29, 1978	3.0%
	December 23, 1980	12.0%	December 23, 1979	67.0%

SATELLITE SNOW COVER

HUMBOLDT RIVER ABOVE COMUS, NEVADA

December 23, 1980



SCALE 1:2,500,000
DATA PROVIDED BY NOAA/NESS
WASHINGTON, D.C.

THIS YEAR	PERCENT SNOW COVER	LAST YEAR	PERCENT SNOW COVER
November 13, 1980	26.0%	November 12, 1979	3.0%
November 27, 1980	43.0%	November 27, 1979	71.0%
December 8, 1980	57.0%	December 6, 1979	18.0%
December 14, 1980	38.0%	December 16, 1979	16.0%
December 23, 1980	11.0%	December 25, 1979	97.4%

RESERVOIR STORAGE (Thousand Acre Feet) AS OF January 1, 1981

Basin or Stream	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average+
Owyhee	Wild Horse	72	48	33	29
Lower Humboldt	Rye Patch	172	153	90	106
Colorado	Mohave	1,810	1,576	1,631	1,589
Colorado	Mead	26,159	23,338	22,629	17,421
Tahoe	Tahoe	732	325	85	445
Truckee	Boca	41	19	14	19
Truckee	Stampede**	220	141	59	112*
Truckee	Prosser***	30	9	10	8
Carson	Lahontan	291	188	174	187
West Walker	Topaz	59	29	18	31
East Walker	Bridgeport	42	31	18	27

* *Adjusted average.*
** *Storage began August 1, 1969.*
*** *Flood Control use allocation of 20,000 acre-feet between November 1 and April 10.*

TOTAL RESERVOIR STORAGE (Thousand Acre Feet)

MONTH	This Year	Last Year	Average +
October 1	883	430	786
January 1	793	432	844
February 1		676	920
March 1		795	968
April 1		875	1,010
May 1		937	1,032

The above data developed from Wild Horse, Rye Patch, Tahoe, Boca, Lahontan, Topaz, and Bridgeport Reservoirs in 1,000 Acre-feet.
TOTAL USABLE CAPACITY 1,409

PEAK FLOWS (MAXIMUM MEAN DAILY) (Av. flow for 24 hrs. on day of greatest flow)

FORECAST POINT	PEAK FLOW (SECOND FEET)	
	Forecast Range	Average +

No forecast issued January 1

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value

No forecast issued January 1

+ 1963-1977 period.

M7-L-22025Q

SNOW COURSE MEASUREMENTS

DRAINAGE BASIN and/or SNOW COURSE NAME	Elevation	THIS YEAR: Date of Survey	THIS YEAR: Snow Depth (Inches)	THIS YEAR: Water Content (Inches)	PAST RECORD: Water Content (inches) Last Year	PAST RECORD: Water Content (inches) Average +
LAKE TAHOE						
Echo Peak (CA)	7,800	12/30/80	13	4.6	14.0	--
Echo Summit (CA)	7,450	12/29/80	11	3.3	12.6	13.0
Fallen Leaf (CA)	6,300	12/31/80	0	0.0	4.6	--
Freel Bench (CA)	7,300	12/29/80	0	0.0	3.5	5.4
Glenbrook #2	6,900	12/31/80	3	1.0	3.4	4.1*
Hagan's Meadow (CA)	8,000	12/29/80	8	2.2	5.9	7.4
Heavenly Valley (CA)	8,800	12/29/80	11	3.3	7.7	11.8*
Lake Lucille (CA)	8,200	12/30/80	11	2.7	5.8	8.7*
Marlette Lake	8,000	12/31/80	1	0.1	5.2	6.1*
Richardsons #2 (CA)	6,500	12/30/80	9	3.3	--	--
Rubicon #2 (CA)	7,500	12/29/80	0	0.0	6.0	6.0*
Tahoe City Cross (CA)	6,750	12/29/80	0	0.0	3.2	4.4
Upper Truckee (CA)	6,400	12/31/80	11	4.3	13.4	13.0*
Ward Creek #2 (CA)	7,000	12/30/80	14	6.4	12.1	12.1
Ward Creek #3 (CA)	6,750					
Summary: Total Snow Courses - 10						
Snow Water Content Inches				(20.0)	(66.2)	(79.0)
Precent of Last Year, Average					(30%)	(25%)
TRUCKEE RIVER						
Donner Summit (CA)	6,900	12/30/80	10	4.0	14.8	15.3
Independence Camp (CA)	7,000	12/30/80	7	2.8	5.8	8.1
Independence Creek (CA)	6,500	12/30/80	3	1.1	4.4	--
Independence Lake (CA)	8,450	12/30/80	19	6.9	9.1	--
Mount Rose	9,000	12/30/80	14	5.5	9.5	--
Mount Rose Ski Area	8,850	12/31/80	23	7.9	14.8	17.2*
Sage Hen Creek (CA)	6,500	NS	--	--	--	--
Squaw Valley #2 (CA)	7,500	12/30/80	19	6.7	17.1	--
Squaw Valley Gold Coast (CA)	8,200	12/31/80	--	7.3**	--	--
Truckee #2 (CA)	6,400	12/31/80	1	0.1	--	--
Summary: Total Snow Courses - 3						
Snow Water Content Inches				(14.7)	(35.4)	(40.6)
Percent of Last Year, Average					(42%)	(36%)
CARSON RIVER						
Blue Lakes (CA)	8,000	1/02/81	15	4.5	14.3	--
Ebbetts Pass AM (CA)	8,700	12/29/80	16	5.4*a*	14.0*a*	--
Ebbetts Pass #2 (CA)	8,700	12/29/80	16	5.4	12.8	--
Fish Valley, Upper AM (CA)	8,050	12/29/80	0	0.0	7.5*a*	--
Monitor Pass AM (CA)	8,350	12/29/80	0	0.0	--	--
Poison Flat AM (CA)	7,900	12/29/80	4	1.2	--	--
Poison Flat #2 (CA)	7,900	12/29/80	9	2.6	4.5	--
Spratt Creek (CA)	6,100	12/29/80	0	0.0	--	--
Wet Meadows Lake AM (CA)	8,050	12/29/80	8	2.5	--	--
Wet Meadows #2 (CA)	8,050	12/29/80	18	5.6	--	--
Wolf Creek AM (CA)	8,000	12/29/80	1	0.1	--	--
Summary: Total Snow Courses - 5						
Snow Water Content Inches				(17.9)	(53.1)	(-)
Percent of Last Year; Average					(34%)	(-)

1963-77 period.

M7-L-220255

SNOW COURSE MEASUREMENTS

DRAINAGE BASIN and/or SNOW COURSE NAME	Elevation	THIS YEAR: Date of Survey	THIS YEAR: Snow Depth (Inches)	THIS YEAR: Water Content (Inches)	PAST RECORD: Water Content (inches) Last Year	PAST RECORD: Water Content (inches) Average +
WALKER RIVER						
Leavitt Lake (CA)	9,400	NS	--	--	16.7	--
Leavitt Meadows (CA)	7,200	12/29/80	3	1.0	4.1	--
Lobdell Lake AM (CA)	9,200	12/29/80	14	3.5	4.1a	--
Lobdell Lake (CA)	9,200	12/29/80	14	3.0	5.2	--
Sonora Pass (CA)	8,800	12/29/80	13	3.8	7.7	9.6
Sonora Pass Bridge (CA)	8,800	12/29/80	13	3.8	8.5	10.0*
Virginia Lakes (CA)	9,500	12/29/80	10	2.9	5.0	6.8
Virginia Lakes Ridge (CA)	9,200	12/29/80	11	3.0	6.1	6.6*
Summary: Total Snow Courses - 4						
Snow Water Content Inches				(13.5)	(27.3)	(33.0)
Percent of Last Year; Average					(50%)	(41%)
NORTHERN GREAT BASIN						
Cedar Pass (CA)	7,100	12/31/80	--	2.4**	7.9**	--
Disaster Peak	6,500	12/31/80	--	0.8**	--	--
Dismal Swamp #2 (CA)	7,000	12/31/80	--	6.7**	--	--
Summary: Total Snow Courses - 1						
Snow Water Content Inches				(2.4)	(7.9)	(-)
Precent of Last Year; Average					(30%)	(-)
SNAKE RIVER						
Bear Creek	7,800	NS	--	--	4.6**	--
Bear Creek AM	7,800	NS	--	--	--	8.1*
Goat Creek	8,800	12/30/80	11	2.3	6.4	7.9*
Hummingbird Springs AM	8,945	NS	--	--	--	10.2*
Pole Creek Ranger Station	8,330	12/30/80	14	4.0	9.0	9.1
Seventy Six Creek	7,100	12/31/80	--	2.9**	2.5**	--
Seventy Six Creek AM	7,100	NS	--	--	2.6a	5.3*
Summary: Total Snow Courses - 2						
Snow Water Content Inches				(6.3)	(15.4)	(17.0)
Percent of Last Year; Average					(41%)	(37%)
OWYHEE RIVER						
Big Bend	6,700	12/28/80	--	1.5**	1.3**	--
Fawn Creek	7,000	12/23/80	--	2.9**	--	--
Jack Creek, Upper	7,250	12/31/80	--	3.2**	5.7**	--
Laurel Draw	6,700	12/31/80	--	1.6**	2.0**	--
Taylor Canyon	6,200	12/30/80	0.0	0.0	0.6	2.1
Summary: Total Snow Courses -						
Snow Water Content Inches				(Insufficient Data)		
Percent of Last Year; Average						
EASTERN NEVADA						
Berry Creek	9,100	12/31/80	--	3.5**	--	--
Ward Mountain #2 AM	7,400	12/31/80	--	3.6**	--	--
Summary: Total Snow Courses -						
Snow Water Content Inches				(Insufficient Data)		
Percent of Last Year; Average						

+ 1963-1977 period.

SNOW COURSE MEASUREMENTS

DRAINAGE BASIN and/or SNOW COURSE NAME	Elevation	THIS YEAR: Date of Survey	THIS YEAR: Snow Depth (Inches)	THIS YEAR: Water Content (Inches)	PAST RECORD: Water Content (inches) Last Year	PAST RECORD: Water Content (inches) Average †
UPPER HUMBOLDT RIVER						
Corral Canyon	8,500	12/31/80	--	2.8**	3.6**	--
Dorsey Basin	8,100	12/31/80	--	2.7**	4.0**	--
Fry Canyon	6,700	12/30/80	6	2.2	2.5	3.2
Lamoille #3	7,700	12/31/80	--	1.7**	--	--
Rodeo Flat	6,800	12/30/80	3	1.4	2.0	2.8
Tremewan Ranch	5,700	12/30/80	0	0.0	0.1	1.0
Summary: Total Snow Courses - 3						
Snow Water Content Inches				(3.6)	(4.6)	(7.0)
Percent of Last Year; Average					(78%)	(51%)
LOWER HUMOLDT RIVER						
Big Creek Summit	8,700	12/31/80	--	1.7**	--	--
Buckskin, Lower	6,700	12/31/80	--	2.1**	--	--
Granite Peak	7,800	12/31/80	--	3.6**	--	--
Lamance Creek	6,000	12/31/80	--	0.7**	--	--
Summary: Total Snow Courses -						
Snow Water Content Inches				Insufficient Data		
Percent of Last Year; Average						
DESERT RESEARCH INSTITUTE MEASUREMENTS						
TAHOE-TRUCKEE BASIN						
Alder Creek	6,960	1/03/81	12	4.6	12.5	--
Apollo Way	7,300	12/30/80	0	0.0	5.7	--
Bennett Flat	6,200	1/03/81	0	0.0	5.6	--
Davis Creek	5,160	1/04/81	0	0.0	1.3	--
Evergreen Hills	5,700	12/30/80	0	0.0	3.6	--
Galena Creek	7,440	NS	--	--	--	--
Henness Pass Junction	6,410	1/03/81	4	1.3	--	--
Hobart Mills	5,850	1/03/81	0	0.0	3.8	--
Incline Lake	8,000	12/30/80	4	1.7	8.5	--
Jones Creek	6,000	12/30/80	0	0.0	3.2	--
Mount Rose Resort	8,280	12/30/80	18	5.2	10.2	--
North Star Fire Department	6,320	12/30/80	0	0.0	3.7	--
RNR Test Site	6,400	12/30/80	0	0.0	5.1	--
Sky Tavern	7,620	12/30/80	7	3.3	7.9	--
Spooner Summit	7,620	1/04/81	2	0.2	4.6	--
Squaw Valley Fire Department	6,240	1/03/81	0	0.0	7.1	--
Sundance Lodge	7,060	NS	--	--	--	--
Tahoe City	6,240	1/03/81	0	0.0	--	--
Tahoe Meadows	8,540	12/30/80	21	6.9	14.3	--
Tamarack Lake	8,820	12/30/80	18	5.4	--	--
Third and Incline Creeks	6,235	12/30/80	0	0.0	2.6	--
Thunder Cliff	6,200	1/03/81	0	0.0	5.3	--
Truckee Airport	5,900	12/30/80	0	0.0	2.2	--
Whites Creek	5,670	12/30/80	0	0.0	2.7	--

a Aerial Marker
** Less than 15 year record*
*** SNOTEL porvisional*
NS Not surveyed this month

NOTE:
All averages based on 1963-77, 15 year period. Forecast period is April 1 through July 31 unless otherwise noted.
†1963-77 period.

M7-L-220253

PRECIPITATION (Inches)

BASIN AND PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT RECORD			PAST RECORD
		PERIOD OF MEASUREMENT	ACCUM. PRECIP. FOR THE PERIOD	ACCUM. PRECIP. SINCE 10/1/80	ACCUM. PRECIP. PREVIOUS YEAR
TAHOE-TRUCKEE					
Echo Peak (CA)	7,800	10/1/80 to 10/31/80	2.4	2.4	8.1
		11/1/80 to 11/30/80	2.9	5.3	14.0
		12/1/80 to 12/31/80	3.3	8.6	22.9
Fallen Leaf (CA)	6,240	10/1/80 to 10/31/80	1.0	1.0	4.0
		11/1/80 to 11/30/80	0.9	1.9	7.0
		12/1/80 to 12/31/80	3.0	4.9	12.5
Hagan's Meadow (CA)	8,000	10/1/80 to 10/31/80	1.0	1.0	3.7
		11/1/80 to 11/30/80	0.6	1.6	6.8
		12/1/80 to 12/31/80	2.4	4.0	12.5
Heavenly Valley (CA)	8,800	10/1/80 to 10/31/80	0.8	0.8	3.4
		11/1/80 to 11/30/80	1.0	1.8	6.7
		12/1/80 to 12/31/80	2.8	4.6	9.7
Independence Camp (CA)	6,500	10/1/80 to 10/31/80	0.9	0.9	4.4
		11/1/80 to 11/30/80	1.7	2.6	6.7
		12/1/80 to 12/31/80	2.6	5.2	11.9
Independence Creek (CA)	6,500	10/1/80 to 10/31/80	0.9	0.9	3.9
		11/1/80 to 11/30/80	1.1	2.0	--
		12/1/80 to 12/31/80	2.4	4.4	8.1
Independence Lake (CA)	8,450	10/1/80 to 10/31/80	1.7	1.7	4.0
		11/1/80 to 11/30/80	1.5	3.2	6.6
		12/1/80 to 12/31/80	4.8	8.0	15.1
Marlette Lake	8,000	10/1/80 to 10/31/80	1.4	1.4	2.1
		11/1/80 to 11/30/80	1.9	3.3	4.3
		12/1/80 to 12/31/80	2.0	5.3	9.5
Mt. Rose	9,000	10/1/80 to 10/31/80	1.2	1.2	2.6
		11/1/80 to 11/30/80	2.1	3.3	4.6
		12/1/80 to 12/31/80	3.3	6.6	10.3
Mt. Rose Ski Area	8,850	10/1/80 to 10/31/80	1.2	1.2	3.7
		11/1/80 to 11/30/80	1.8	3.0	6.1
		12/1/80 to 12/31/80	4.9	7.9	16.2
Rubicon #2 (CA)	7,500	10/1/80 to 10/31/80	1.1	1.1	--
		11/1/80 to 11/30/80	1.9	3.0	--
		12/1/80 to 12/31/80	2.8	5.8	--
Squaw Valley Gold Coast (CA)	7,800	10/1/80 to 10/31/80	2.1	2.1	--
		11/1/80 to 11/30/80	3.5	5.6	--
		12/1/80 to 12/31/80	4.8	10.4	--
Tahoe City Cross (CA)	6,750	10/1/80 to 10/31/80	1.5	1.5	3.8
		11/1/80 to 11/30/80	1.5	3.0	--
		12/1/80 to 12/31/80	2.7	5.7	12.0
Truckee #2 (CA)	6,400	10/1/80 to 10/31/80	0.2	0.2	--
		11/1/80 to 11/30/80	1.0	1.2	--
		12/1/80 to 12/31/80	2.2	3.4	--
Ward Creek #3 (CA)	6,750	10/1/80 to 10/31/80	1.4	1.4	7.8
		11/1/80 to 11/30/80	3.0	4.4	14.6
		12/1/80 to 12/31/80	5.4	9.8	23.9
CARSON-WALKER					
Blue Lakes (CA)	8,000	10/1/80 to 10/31/80	1.3	1.3	--
		11/1/80 to 11/30/80	1.9	3.2	--
		12/1/80 to 12/31/80	3.2	6.4	16.4
Ebbetts Pass #2 (CA)	8,700	10/1/80 to 10/31/80	1.4	1.4	4.5
		11/1/80 to 11/30/80	1.3	2.7	9.0
		12/1/80 to 12/31/80	5.2	7.9	18.2
Leavitt Meadows (CA)	7,200	10/1/80 to 10/31/80	1.1	1.1	--
		11/1/80 to 11/30/80	1.9	3.0	--
		12/1/80 to 12/31/80	3.1	6.1	9.5
Lobdell Lake (CA)	9,200	10/1/80 to 10/31/80	1.0	1.0	1.5
		11/1/80 to 11/30/80	1.1	2.1	3.0
		12/1/80 to 12/31/80	2.9	5.0	7.2
Pine Nut Creek (CA)	6,600	Not Surveyed.	--	--	--
Poison Flat (CA)	7,900	10/1/80 to 10/31/80	1.1	1.1	--
		11/1/80 to 11/30/80	1.1	2.2	--
		12/1/80 to 12/31/80	1.8	4.0	8.0

PRECIPITATION (Inches)

BASIN AND PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT RECORD			PAST RECORD
		PERIOD OF MEASUREMENT	ACCUM. PRECIP. FOR THE PERIOD	ACCUM. PRECIP. SINCE 10/1/80	ACCUM. PRECIP. PREVIOUS YEAR
CARSON-WALKER (contd.)					
Sonora Pass Bridge (CA)	8,800	10/1/80 to 10/31/80	0.7	0.7	2.4
		11/1/80 to 11/30/80	1.3	2.0	5.0
		12/1/80 to 12/31/80	2.7	4.7	11.6
Spratt Creek (CA)	6,080	10/1/80 to 10/31/80	1.0	1.0	--
		11/1/80 to 11/30/80	1.0	2.0	--
		12/1/80 to 12/31/80	3.2	5.2	--
Virginia Lakes Ridge (CA)	9,200	10/1/80 to 10/31/80	0.4	0.4	1.7
		11/1/80 to 11/30/80	1.0	1.4	3.6
		12/1/80 to 12/31/80	2.6	4.0	8.1
Wet Meadows #2 (CA)	8,050	10/1/80 to 10/31/80	1.5	1.5	--
		11/1/80 to 11/30/80	2.0	2.0	--
		12/1/80 to 12/31/80	3.8	7.3	--
HUMBOLOT					
Big Creek Summit	8,700	10/1/80 to 10/31/80	1.0	1.0	--
		11/1/80 to 11/30/80	1.2	2.2	--
		12/1/80 to 12/31/80	0.5	2.7	--
Buckskin, Lower	6,700	10/1/80 to 10/31/80	1.3	1.3	--
		11/1/80 to 11/30/80	2.2	3.5	--
		12/1/80 to 12/31/80	1.7	5.2	--
Corral Canyon	8,500	10/1/80 to 10/31/80	0.9	0.9	2.6
		11/1/80 to 11/30/80	1.9	2.8	5.9
		12/1/80 to 12/31/80	1.4	4.2	6.6
Dorsey Basin	8,100	10/1/80 to 10/31/80	1.9	1.9	2.1
		11/1/80 to 11/30/80	2.2	4.1	5.6
		12/1/80 to 12/31/80	1.3	5.4	6.6
Fry Canyon	6,700	9/30/80 to 12/30/80	4.5	4.5	--
Granite Peak	7,800	10/1/80 to 10/31/80	2.0	2.0	--
		11/1/80 to 11/30/80	2.5	4.5	--
		12/1/80 to 12/31/80	1.6	6.1	--
Green Mountain	8,000	Not Surveyed	--	--	--
Lamance Creek	6,000	10/1/80 to 10/31/80	1.2	1.2	--
		11/1/80 to 11/30/80	2.4	3.6	--
		12/1/80 to 12/31/80	1.6	5.2	--
Lamoille #3	7,700	10/1/80 to 10/31/80	1.1	1.1	--
		11/1/80 to 11/30/80	2.2	3.3	--
		12/1/80 to 12/31/80	1.0	4.3	--
Martin Creek	6,700	Not Surveyed	--	--	--
Rodeo Flat	6,800	10/1/80 to 12/30/80	3.5	3.5	6.0
Trout Creek, Lower	6,900	Not Surveyed	--	--	--
SNAKE-OWYHEE					
Bear Creek	7,800	10/1/80 to 10/31/80	1.5	1.5	4.5
		11/1/80 to 11/30/80	2.4	3.9	7.8
		12/1/80 to 12/31/80	2.2	6.1	8.0
Big Bend	6,700	10/1/80 to 10/31/80	0.7	0.7	2.9
		11/1/80 to 11/30/80	1.2	1.9	4.9
		12/1/80 to 12/31/80	1.3	3.2	5.4
Fawn Creek	7,000	10/1/80 to 10/31/80	2.1	2.1	--
		11/1/80 to 11/30/80	2.9	5.0	--
		12/1/80 to 12/31/80	2.1	7.1	--
Goat Creek	8,800	10/1/80 to 10/31/80	0.9	0.9	--
		11/1/80 to 11/30/80	1.5	2.4	--
		12/1/80 to 12/31/80	1.9	4.3	--
Jack Creek #2, Upper	7,250	10/1/80 to 10/31/80	1.9	1.9	3.9
		11/1/80 to 11/30/80	2.7	4.6	6.8
		12/1/80 to 12/31/80	2.1	6.7	7.6
Jacks Peak	8,420	Not Surveyed	--	--	--
Laurel Draw	6,700	10/1/80 to 10/31/80	1.3	1.3	5.0
		11/1/80 to 11/30/80	2.1	3.4	7.7
		12/1/80 to 12/31/80	2.2	5.6	9.0

PRECIPITATION (Inches)

BASIN AND PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT RECORD			PAST RECORD
		PERIOD OF MEASUREMENT	ACCUM. PRECIP. FOR THE PERIOD	ACCUM. PRECIP, SINCE 10/1/80	ACCUM. PRECIP. PREVIOUS YEAR
SNAKE-OWYHEE (contd.)					
Pole Creek Ranger Station	8,330	10/1/80 to 10/31/80	0.9	0.9	--
		11/1/80 to 11/30/80	1.4	2.3	--
		12/1/80 to 12/31/80	1.1	3.4	--
Seventy Six Creek	7,100	10/1/80 to 10/31/80	0.8	0.8	3.3
		11/1/80 to 11/30/80	1.6	2.4	5.8
		12/1/80 to 12/31/80	1.4	3.8	6.4
Taylor Canyon	6,200	10/1/80 to 10/31/80	0.3	0.3	--
		11/1/80 to 11/30/80	0.6	0.9	--
		12/1/80 to 12/31/80	0.7	1.6	2.3
EASTERN NEVADA					
Berry Creek	9,100	10/1/80 to 10/31/80	0.8	0.8	--
		11/1/80 to 11/30/80	1.4	2.2	--
		12/1/80 to 12/31/80	2.0	4.2	--
Hole-in-Mountain	8,900	Not Surveyed	--	--	--
Ward Mountain	8,900	10/1/80 to 10/31/80	0.7	0.7	--
		11/1/80 to 11/30/80	1.3	2.0	--
		12/1/80 to 12/31/80	2.1	4.1	--
NORTHERN GREAT BASIN					
Cedar Pass (CA)	7,100	10/1/80 to 10/31/80	2.5	2.5	5.4
		11/1/80 to 11/30/80	2.4	4.9	10.8
		12/1/80 to 12/31/80	2.0	6.9	12.9
Disaster Peak	6,500	10/1/80 to 10/31/80	0.1	0.1	--
		11/1/80 to 11/30/80	1.9	2.0	--
		12/1/80 to 12/31/80	2.4	4.4	--
Dismal Swamp #2 (CA)	7,050	10/1/80 to 10/31/80	2.0	2.0	--
		11/1/80 to 11/30/80	3.0	5.0	--
		12/1/80 to 12/31/80	5.4	10.4	--
Ferguson Ranch	5,560	Not Surveyed	--	--	--
49 Mountain	6,000	Not Surveyed	--	--	--
Mt. Bidwell (CA)	7,240	Not Surveyed	--	--	--

All data SNOTEL provisional except Rodoe Flat and Fry Canyon.

Agencies Cooperating in Collecting Data Contained in this Bulletin

FEDERAL
- Agricultural Research Service
- Bureau of Reclamation
- Fish and Wildlife Service
- Forest Service
- Geological Survey
- Soil Conservation Service
- U. S. District Court - Federal Water Master
- NOAA, National Weather Service

STATE
- California Cooperative Snow Surveys
- California Department of Parks and Recreation
- California Department of Water Resources
- Colorado River Commission of Nevada
- Idaho Cooperative Snow Surveys
- Nevada Association of Conservation Districts
- Nevada Department of Conservation & Natural Resources
  - Division of Water Resources
  - Nevada State Forester
- Oregon Cooperative Snow Surveys
- University of Nevada, Desert Research Institute
- Utah Cooperative Snow Surveys
- White Mountain Research Station, Univ. of California

PRIVATE
- Amalgamated Sugar Company
- Kennecott Copper Corporation
- Nevada Irrigation District
- Owyhee Project North Board of Control
- Owyhee Project South Board of Control
- Pacific Gas and Electric Company
- Pershing County Water Conservation District
- Sierra Pacific Power Company
- Truckee-Carson Irrigation District
- Walker River Irrigation District
- Washoe County Water Conservancy District

Other organizations and individuals furnish valuable information for the snow survey reports. Their Cooperation is gratefully acknowledged.

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